



Climate Change Solutions: We Can All Help!

If people are causing climate change, then the good news is that people can slow it down. If we each do our part and work together, we can make a difference and reduce the impacts of climate change on our planet.

What Do We Need To Do?

Greenhouse gases (GHGs) put into our atmosphere when we burn fossil fuels cause climate change. The average Canadian produces about five tonnes of GHGs every year. That much greenhouse gas would fill six average-sized two-storey houses!

We create about half of our GHGs when we travel in cars, trucks, planes and snowmobiles. We also produce a lot of GHGs when we burn fuel to heat our homes – or use electricity produced by diesel generating plants. (Diesel oil is a non-renewable energy source that is used to generate electricity in many of northern communities.) GHGs are also produced when most of the food and “stuff” we use in our day-to-day lives is manufactured, processed and moved around.



If we can cut back our use of gas, oil, diesel and coal, we can cut back the amount of greenhouse gases we produce. The less you drive, the less heat and electricity you use, and the fewer things you buy, the less carbon dioxide you put into the atmosphere... it's that simple. And using less energy and buying less saves money!

Going Green – An Energy Revolution

Reducing energy use is a very important first step, but we can do more. We can replace non-renewable fossil fuels with renewable energy sources that don't cause climate change. Renewable energy sources are often called 'green energy,' and they're good news for the planet!



Where Do We Get Green Energy?

Have you ever been pushed by a strong wind? Have you ever stood in a rushing stream and felt the strong current? Have you ever felt how hot a rock can get when it sits in the sun? Wind, moving water and sun are green energy sources. We can use this clean energy – or electricity produced by them – to displace the oil, coal and gas we are now using to heat our homes, turn on our lights, and power our vehicles.

Renewable energy sources such as wind, water and sun don't produce greenhouse gases. Neither does heat from the ground or from ground water, or hydrogen fuel. Biomass and biogas fuels can be made from plant materials. None of them cause climate change! Non-renewable energy from oil, gas, coal and diesel gets used once and is gone forever. Your tank of gas turns into GHGs and is gone. Renewable energy sources can be used as long as the wind blows, rivers flow and the sun shines. Bio fuels can be produced for as long as we can grow plants.



Is Anyone Using Renewable Energy in the North?

Hydro-dams (that use the power of water) have supplied electricity to parts of the north for years. More recently, wind turbines have been put up at Whitehorse, in the Yukon, and at Rankin Inlet, in Nunavut. They use wind power to produce electricity that keeps lights on in a lot of homes. Other northern communities are starting to use wind energy and energy from the sun (called solar energy) to meet some of their needs.

Save Energy, Save the Planet!

We can't switch from old energy sources to new ones overnight, though. It takes an investment, and it will take some time. But in the meantime, you and your family can cut back your energy use. This is called 'energy conservation' – read on!



What you can do:

- ★ Turn off lights, computers and TVs when you leave the room (you can do this at home and at school)
- ★ Take a bus, ride your bike or walk to school or to a friends when you can
- ★ Turn down the heat in your home- if it feels a bit chilly, put on a sweater
- ★ Don't leave the doors open when it is cold out – keep the heat in!
- ★ Put your used pop cans and bottles in the recycle bins at home and school – recycling saves energy
- ★ Take shorter, cooler showers (it takes lots of energy to heat water)
- ★ Encourage people in your life to idle their cars less, walk more and carpool
- ★ Learn how to compost your waste vegetables – less garbage in landfills means fewer greenhouse gases in the atmosphere
- ★ Don't buy products that have a lot of packaging on them (it takes lots of energy to produce packaging that we usually just throw away)
- ★ Get your school involved – ask your teacher how your school can reduce energy use
- ★ Be an energy waste detective in your home and seal up any drafts or leaky areas
- ★ Follow the 3 R's – Reduce, Reuse, Recycle!





Schools Can Help

Schools are getting involved across Canada. They're adopting energy conservation programs that save them lots of money, reduce energy use and lower greenhouse gas production. They're helping to slow down climate change! Encourage your school to get involved.

What about Governments and Businesses?

Governments around the world are signing agreements to address climate change. The most recent agreement is called the Kyoto Protocol. The government of Canada has signed this agreement. That means Canada and Canadians have agreed to cut back the volume of greenhouse gases we produce.

Here are just a few ways that governments and businesses across Canada are reducing their greenhouse gas emissions:

- The City of Whitehorse has citywide compost pick-up, reducing methane (a greenhouse gas) produced by waste rotting in landfills.
- In 2004, the new regional hospital in Iqaluit, Nunavut will be using waste heat from the power generating plant for its heat.
- The City of Toronto (largest city in Canada) has reduced its greenhouse gas emissions by 67% below what it was emitting in 1990. It did this by doing things such as reducing the energy used by its buildings, making streetlights more efficient, buying more fuel-efficient cars and recycling and composting at its landfills to turn waste into energy.
- The City of Calgary has a light rail transportation system running on electricity produced by wind-power.
- Many businesses are cutting down on energy use by doing things such as making their buildings more efficient, offering their employees cheap bus passes to encourage them to take the bus, and recycling their waste.



Remember, the fewer greenhouse gases that are added to the atmosphere the better! ***We can all do our part to reduce climate change...get your family, friends, and school involved!***



Key Points

- ★ We can all do our part to slow down climate change by reducing our energy use at home and at school. You can help if you:
 - turn out lights when they are not in use
 - turn off the computer or TV when it's not being used
 - walk more
 - ask your parents not to leave the car idling
 - turn down the heat
- ★ You can cut back GHG emissions by buying less.
- ★ Switching to renewable energy sources – using electricity produced by wind, water and sun energy, for example – is a way to reduce GHGs.
- ★ In the north – and across Canada – governments, businesses and individuals are trying hard to reduce GHGs.



Want to Know More?

Check out these websites to learn how you and your school can make a difference:

- **Cool Kids' Climate Club (What to do?):**
<http://www.coolclimate.org/whattodo.htm>
- **Destination Conservation:** <http://www.dcplanet.org/home.html>
- **Government of Canada Climate Change Website:**
<http://www.climatechange.gc.ca/english/otc/>
- **EPA Global Warming Kids' Site:**
<http://www.epa.gov/globalwarming/kids/difference.html>
- **Go for Green:** http://www.goforgreen.ca/walktoschool/home_e.html

And more on renewable energy:

- **CanREN Youth Site:** <http://canren.gc.ca/school/index.asp>
- **Energy Solutions Centre:** <http://www.nrgsc.yk.ca>
- **Re-Energy:** <http://www.re-energy.ca/>
- **Solar School (Renewable Energy):**
http://das.ee.unsw.edu.au/~solar/classrooms/3_1.html
- **U.S. Department of Energy Kid's Zone:** <http://www.eia.doe.gov/kids/>